Pre-Departure Training for Student Global Health Experiences: A Scoping Review

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ABSTRACT

Purpose: The authors identify the recommended pre-departure training (PDT) practices for physiotherapy students participating in a global health experience (GHE): both the content to be covered and the preferred learning methods to be used. They also discuss the implications of these recommendations for the physiotherapy field. ***Method:*** A scoping review of scientific and grey literature was performed to identify the recommended PDT practices. A thematic analysis was then performed to identify emerging themes. ***Results:*** The recommended PDT content broke down into the following areas: global health knowledge; ethics, introspection, and critical thinking; cultural competency; cross-cultural communication; placement-specific knowledge; and personal health and safety. The recommended learning methods were a combination of didactic, reflective, and experiential components that would enhance knowledge, develop cross-cultural skills, and address attitudinal changes. ***Conclusion:*** The growing participation of Canadian physiotherapy students in GHEs requires universities to adequately prepare their students before they leave to mitigate moral hazards. Given that little empirical research has been published on the effectiveness of PDT, the authors encourage collaborative efforts to develop PDT and evaluate its effectiveness for students and its impact on host communities.

Key Words: culture; global health; pre-departure training.

RÉSUMÉ

Objectif : recenser les pratiques recommandées pour la formation prédépart des étudiants en physiothérapie qui participent à un stage en santé mondiale (contenu et méthodes d'apprentissage), et en étudier les répercussions. ***Méthodologie :*** une synthèse exploratoire des publications scientifiques et de la littérature grise a été effectuée afin de recenser les pratiques recommandées, puis une analyse thématique a permis de faire ressortir les principaux thèmes. ***Résultats :*** le contenu des pratiques recommandées peut être classé dans les domaines suivants : connaissances en santé mondiale; éthique, introspection et pensée critique; compétences culturelles; communication interculturelle; connaissances propres au stage; santé et sécurité personnelle. Les méthodes d'apprentissage recommandées étaient une combinaison de composantes didactiques, réflexives et expérientielles axées sur l'acquisition de connaissances, le développement de compétences interculturelles et le changement de mentalité. ***Conclusion :*** compte tenu du nombre croissant d'étudiants canadiens en physiothérapie qui participent à des stages en santé mondiale, les universités doivent bien les préparer avant leur départ afin de limiter les enjeux moraux. Étant donné que peu de recherches empiriques ont été publiées sur l'efficacité des formations prédépart, les auteurs encouragent la réalisation de projets collaboratifs de mise sur pied de formations et d'évaluation de leur efficacité auprès des étudiants et de leur impact dans les milieux d'accueil.

Global health (GH) is defined as an area of study, research, and practice that places a priority on improving health for all people around the world; it emphasizes transnational health issues, determinants, and solutions; involves many disciplines within and beyond the health sciences; promotes interdisciplinary collaboration; and synthesizes population-based prevention with individual-level clinical care.[1] GH is becoming an increasingly important area of practice in physiotherapy (PT), and a growing number of PT students participate in global health experiences (GHEs).[2–4] GHEs can be defined as clinical placements completed outside Canada in low- and middle-income countries (LMICs); they can enhance students' understanding of the cultural values and social health determinants that influence their patients' health, ultimately improving their ability to provide patient-centred care.[5]

Along with these positive effects, however, there are also inherent risks.[6] For example, a lack of focus on sustainability and a tendency to focus on student learning

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Table 1 Flowchart of the screening process.

Sources of articles	Database search ($N = 2,154$)	Snowball ($n = 52$)
Initial screening of articles by title and abstract	223 included; 1,931 excluded	52 included
Second screening of articles by full-text review	23 included; 141 excluded; 59 unavailable	27 included; 25 excluded
Articles included in the scoping review	50 articles	

rather than community needs may have a negative effect on host communities.[4] Furthermore, a lack of knowledge of the local culture or language may influence students' ability to appropriately manage patients.[2] A consensus among experts appears to be that universities have a responsibility to offer pre-departure training (PDT) to their students to maximize their learning experience and diminish the negative impact that a GHE may have on the host community.[5–10]

Little research has been conducted to identify how to prepare PT students for their GHEs. However, a wealth of literature does exist on GHEs and PDT in other fields.[8,9,11–14] Some has recommended the specific content to be covered in PDT (e.g., ethics),[8,9] some has evaluated its university's PDT,[15–25] and some has explored how to develop specific components of PDT (e.g., cultural competency).[26–32] The aims of this study were, therefore, to summarize the recommended practices for PDT, both the content to be covered and the preferred learning methods to be used to enhance student participation and understanding, and to discuss the implications of these recommendations for the physiotherapy field. Because GH is inherently interdisciplinary,[1] and much of the content covered in PDT can apply to all health care fields, synthesizing the recommendations found in other fields can lead to useful recommendations to guide the development of PDT in PT programmes.

METHODS

Search strategies

We used a scoping review, a method that enables researchers to map the breadth and depth of knowledge in a field.[33] The search strategies we used were developed with a research librarian to respond to our research question, which was, "How should we prepare PT students for GHEs?" The first strategy was to search six databases (Cinahl, Medline, ERIC, Education Source, Mantis, and AMED) with a combination of keywords, such as *global health* and *pre-departure training* (see Appendix for the complete list of keywords). We searched all databases from their earliest records up to February 18, 2014. After removing duplicates, 2,154 articles remained. The second strategy was to use a snowball method: We invited 28 GH experts to send us articles on the basis of the following inclusion criteria: scientific or grey literature, written in French or English, discussing PDT practices for student GHEs. We received 52 additional articles.

Initial screening

We initially screened titles and abstracts on the basis of these inclusion criteria. Both team members screened the first 50 articles; to ensure validity in the selection process, disagreements regarding inclusion for full review were discussed until consensus was reached. One team member screened the rest of the articles. After this initial screening, 223 articles remained. For the second screening phase, we first excluded 59 articles that were unavailable through our university's library and then read the remaining articles in full to identify whether they met the inclusion criteria and, if they did, to extract the data. We excluded articles that did not discuss PDT content or learning methods. After the two phases of article screening, we retained 50 articles to be included in the scoping review. Table 1 shows the screening process.

Data extraction

We then drafted a data extraction chart. The data we extracted provided information on authors, title of article, year of publication, article type, and the recommended training content and learning methods. After independently completing the data extraction for 10 articles, we and another research assistant met to review the data extraction chart and ensure that the information extracted was consistent. Once consensus was achieved, one team member extracted the data for the remaining articles. She then performed a thematic analysis following the six-step process described by Braun and Clark,[34] which includes familiarizing oneself with the data; generating codes; and searching for, reviewing, and refining themes. She discussed the emerging themes with the second team member to validate her interpretation of the data and the research question.

RESULTS

Articles included

A total of 50 articles were included: 37 related to undergraduate medicine or medical residency, 10 to PT, 3 to occupational therapy, 3 to nursing, and 1 to public health (3 articles discussed PDT for more than one discipline, which accounts for the total being greater than

50). In terms of article types, 19 articles presented expert opinions, 7 were qualitative studies, 4 were reviews, 4 were course descriptions, and 16 were course evaluations. Of these 16 course evaluations, 7 evaluated the effectiveness of PDT through pre- and post-surveys of knowledge or attitudes in regard to cultural diversity or GH, and 1 used a case study to evaluate knowledge application; other evaluations gathered formal or informal feedback on the students' experience, such as student satisfaction and suggestions for improvement.

Themes related to content

From the recommended PDT practices found in the literature, we developed six themes related to the content to be covered. The following section describes the recommendations we found for each theme.

Global health knowledge

Working in GH settings requires students to gain background knowledge of GH so that they understand the multiple factors that influence health care and systems; this knowledge prepares them for the challenges they will face when they later practise in LMICs. Students should therefore be exposed to concepts such as postcolonial theory,[35] and they should be able to discuss the various social health determinants and complex global phenomena that influence the health of groups and individuals: war, poverty, discrimination, and globalization.[11,12,16,18,19,23,24,36–42] Familiarizing oneself with the impact of governments and international organizations on health care and policies is important for developing an understanding of existing GH priorities (e.g., sustainable development goals).[12,18,23,37–39] Identifying the barriers related to practising in LMICs,[12,36] such as limited access to health care services in remote areas and inadequate infrastructure, further exposes students to the challenges that health care workers face in GH settings.[2] Students need to reflect on their role as GH workers in promoting sustainable interventions,[37] focusing on prevention and health promotion,[3,12,37,43,44] and advocating for social justice and effective health care services for vulnerable patients.[12,30,35,36,39,45]

Ethics, introspection, and critical thinking

Students will undoubtedly be faced with ethical issues when travelling to LMICs because the realities of practising in culturally diverse or impoverished settings may contrast greatly with their previous clinical and life experiences. Students should therefore be exposed to various ethical dilemmas that they may encounter[9,12,46] and be given an ethical framework for solving problems during their GHEs.[9,47] Students should understand that patients' rights and the notion of consent may differ from country to country,[2] and they should discuss medical ethics in relation to scarcity and resource allocation in making their decisions.[20,47,48] Because students may be asked to perform tasks outside their scope of practice, they need to establish their professional limits to ensure patient safety.[2,8,44,48] Students should be challenged to explore their personal biases, assumptions, and values and how they may affect their practice.[8,49] Discussing goals and motivations for participating in GHEs helps adjust students' expectations,[8,11,38,44,47,50] as does exploring medical tourism and its potentially detrimental effects.[2,8,38,44,46,50]

Students should acknowledge the position of privilege that enables them to participate in a GHE and the effect that it may have on their interactions with the local population.[8,9,37,44,49,51] Further critical reflection on topics such as the potential harms of foreign involvement[35] and systemic social inequality might allow students to understand how the developing world is still subjugated by the developed world today.[44] Finally, encouraging students to develop values such as solidarity and humility might help ensure that they act in an ethical manner while abroad.[44,47,48]

Cultural competency

Cultural competency describes the ability to understand a culture and behave in ways that promote respectful interactions within a culture.[35] It calls for an understanding of, acceptance of, and respect for differences, all of which are essential for developing productive relationships.[35,36] Cultural competency requires students to practise cultural humility, a process of self-reflection and self-critique that fosters mutually respectful partnerships with individuals and communities.[27,32,38] Students should gain specific knowledge of their host country's culture:[6,16,21,35,48,49,52] its cultural norms and customs;[8,35,48,49] its religious and moral values;[48] and its socio-economic,[6,11,12,36,48] historical,[8,11,12,16,35,36,48] and political background.[11,12,35,36,48,49] An understanding of gender dynamics,[8,48,49] local health beliefs,[2,8,32,35,36,43] and traditional approaches may also help prepare students for clinical exposure.[2] Finally, students should be prepared to identify and work through culture shock because it may render them incapable of providing efficient care to their patients and benefiting from their experience.[6,8,11,13,38] Students should therefore be provided with comprehensive emotional preparation.[6]

Cross-cultural communication

Communication is the cornerstone of clinical encounters and is fundamental in building the relationship between patient and health care provider.[8] It is therefore an essential skill for students to develop.[12,27,37,53] Effective cross-cultural communication entails learning the local language,[2,3,6,8,12,16,32,36,43,46,50,52] decoding nonverbal communication,[2,32,36,43] and using interpreters.[2,8,50] It also means adapting oneself to the socio-cultural context.[39,43] Students need to learn to identify patients' health beliefs; screen, evaluate, and establish a prognosis; intervene; and negotiate treatment plans with patients in a culturally sensitive manner.[36,39,43,52,54] Students must

also learn to identify barriers to effective communication[8,43,52] and be taught how to deal with the differing expectations and possible conflicts that may occur.[9,32,48,51]

Placement-specific knowledge

To better understand the context in which they will be working, students need to receive information about their host institution's needs and expectations[2,36,46,50] as well as how the health services at the host institution[2,21,50] and in the local health system are organized.[21,35,49,50] Students must also become familiar with local pathologies and learn how to manage them.[2,19–21,24,37,42,46]

Personal health and safety

Students need to learn about health and safety precautions because they may be exposed to serious health risks during their GHEs.[8,9,12,21,36,51] Ideally, this information should be specific to their destination[13] and include prophylactic information such as immunizations and basic health precautions (e.g., water and food safety).[8,36] Students should be encouraged to read up on the travel advisory warnings of their host country, create an emergency contact list, develop a contingency plan in the event of civil unrest or natural disasters, and identify the health care services they can access in case of an emergency.[3,8]

Themes related to learning methods

From the PDT recommendations found in the literature, we developed five themes related to the various learning methods to be used to enhance student participation and understanding. This section describes the recommendations found for each learning method.

Self-directed learning

Self-directed learning methods are activities that students do at their own pace; they include seeking out information, reading recommended books, and completing online modules. These methods encourage students to take responsibility and leadership during their PDT. Authors recommended that students be encouraged to learn about their host country,[3,11,21,23] speak to people with prior experience,[3,7,17,21,24] and contact their host institution before leaving.[3,11,17,21,24] To guide students in this process, they can be provided with books, films, and links to Web sites,[17] as well as with opportunities to engage with previous trainees.[17]

Directed learning

Directed learning methods are activities led by experienced individuals who guide students in their learning process. Although concepts can be presented in lectures,[15,17–20,22,24,26,30–32,43,48,52,54,55] integrative activities in which students apply concepts (e.g., case studies) are essential to enhance learning.[11,18,19,32,40,43,48,55,56] Considerable benefit is seen in group work because it incorporates critical peer feedback[50] and allows interaction in group discussions,[11,19,20,23,26,30,32,43,48,54] games,[20,43] and debates.[32] To make the content more relevant for students, case studies and scenarios should be based on real-life experiences and geared toward current events.[30,40,50]

Reflective learning

There is little evidence that students spontaneously gain critical self-consciousness.[50] Students should therefore be guided in reflective practice, self-awareness, and self-assessment activities.[43–46,50,56] These methods also seem to have a positive impact on attitudinal change in students.[43] Methods discussed were the use of reflective journaling,[50] reflection papers,[18,26,30,43,52,56] self-assessment questionnaires,[32,43,52] and values-clarification exercises.[43]

Experiential learning

Experiential learning consists of putting skills into practice, which allows students to integrate the concepts covered in class. Recommended activities include demonstrations[26,31] and simulations[26,31,32,43,48] by means of role-playing[3,26] with simulated patients.[22,26,48,54] Debriefing should follow these types of activities because it increases the acquisition and retention of new skills and knowledge in trainees.[48] Teaching outside the classroom (e.g., in inner-city clinics)[17,18,21,26,27,30,40,48,56] was also suggested; it enables students to enhance their cross-cultural communication skills because they engage with patients from various socio-cultural backgrounds.[27]

Assessment

Assessment was said to be an integral part of the education process.[43] The literature recommended three levels of assessment: knowledge, attitudes, and skills.[43,56] To assess each of these spheres, many activities were suggested. Knowledge can be assessed in written examinations,[17,43,52,56] reflection papers,[18,26,30,43,52,56] seminar discussions,[30,32,43] portfolios,[29] oral presentations,[17,23,32,43] and case studies.[18,43,48,56] Attitudes can be assessed using survey instruments,[32,43] self-assessment questionnaires,[32,43,52] values-clarification exercises,[43] and journaling.[26,43] Skills can be assessed by observing activities such as real or staged clinical encounters.[26,43,52]

DISCUSSION

The recommendations found in the scoping review revealed that PDT should cover concepts related to GH knowledge; ethics, introspection, and critical thinking; cultural competency; cross-cultural communication; placement-specific knowledge; and personal health and safety. These themes apply to all health care disciplines, including PT, because they generally aim to broaden students' horizons, heighten their understanding of the complexities of working in GH settings, guide reflective practice, induce attitudinal change, and develop basic cross-cultural communication skills. These themes can, however, be looked at through a PT-specific lens. For example, when discussing GH knowledge, students should become familiar with the prevalence of disability and its

relationship with poverty. Using PT-specific case studies, in which students encounter unfamiliar conditions such as poliomyelitis, or using simulations in which students must elicit their patients' health beliefs regarding their stroke, could be useful in preparing students for clinical encounters. Similarly, it would be helpful to address ethics and cultural humility—for example, by debating how or whether to intervene with a colleague who is using massage to treat a patient with a spinal cord injury. Other practical skills that PT students might need to work in a GH context are advocating for social inclusion or developing transdisciplinary skills, such as performing home evaluations and recommending assistive devices.

The PDT content recommended in this scoping review has been echoed in publications that appeared after our initial literature search. Ahluwalia and colleagues[7] discussed various themes to strengthen GHEs, such as developing long-term partnerships with host institutions, starting a discussion about costs, adopting an informed approach to selecting students, investing in post-trip debriefing, and expanding PDT. As we found in our scoping review, they identified a need for PDT to focus on the details of the training site; on the critical theory of GH, such as post-colonial theory; on cultural competency; and on reflective practice. They also recommended integrating PT-specific training into PDT as well as discussions about appropriate behaviour for using social media. This need was not specifically highlighted in the scoping review, but it could fall under the theme of ethics, introspection, and critical thinking; it is of great importance to ensure that students do not harbour unintended prejudice when they are working with patients and host communities.

Mesaroli and colleagues[5] explored the perceived impact of participating in student GHEs on PTs' current professional practice. They reported that GHEs allowed students to develop critical reflection on culture, values, and practice; effective communication skills; and resourcefulness and creativity. They recommended informing students about these effects during PDT to help students adjust their expectations. Adjusting expectations was also identified in our scoping review, and it seems to be an important aspect of PDT. Another interesting element of that study is that it used the version of the Essential Competency Profile (ECP) developed by Cassady and colleagues,[35] which looked at the seven roles outlined in the original ECP published by Canada's National Physiotherapy Advisory Group (expert, communicator, collaborator, manager, advocate, scholarly practitioner, and professional) from the point of view of GH practice and added three other roles (critical thinker, global health learner, respectful guest). Because the ECP is a model with which students are familiar, it would be interesting to use Cassady and colleagues' expanded model to help students understand the need for additional competencies when practising in a GH setting.

Cleaver and colleagues[57] discussed in a commentary the importance of teaching reflective practice and cultural humility to students participating in GHEs. This related to the findings of our scoping review that recommended developing students' cultural competency and critical introspective practice, but it specifically called for enhanced training in cultural humility to redress power imbalances and develop mutually beneficial and non-paternalistic relationships.[58]

IMPLICATIONS FOR PRACTICE

It appears to be essential to comprehensively prepare students for challenging GH situations because they will be assessing and treating patients with complex health conditions influenced by socio-cultural factors, with little supervision, in an unfamiliar context of care. PDT needs to go beyond traditional training, which often simply discusses general knowledge related to GH and culture. It needs to put these concepts into practice using integrative, reflective, and experiential activities to develop practical skills and induce attitudinal change in students.

These recommendations represent an ideal; they must be balanced with the feasibility of integrating them into PT programmes. Certain barriers exist within PT programmes, which may hinder the ability to deliver all the necessary content and use various learning methods. Some of these barriers include the already content-laden curriculum,[15,54] varying student needs,[15,25] and the time and cost of developing and offering the material.[18,29,41,54] In light of these barriers, it would be beneficial to establish collaborative approaches among faculty, GH offices, and PT professional associations. Also, integrating GH into the regular curriculum could be an interesting approach.[14,27,46,59] Given Canada's cultural diversity, cultural competency and cross-cultural communication skills would certainly benefit all students. PDT could then concentrate on practising in GH settings and learning about the host country and institution.

This study has several limitations. The scoping review allowed us to identify many recommendations for how to prepare PT students for GHEs; however, despite using many databases, our literature search identified only half of the articles that we included in our study; the other half were located using the snowball method. This may be explained by the choice of key words used in our literature search. Many articles we received using the snowball method were related to specific aspects of training, such as cultural competency, which we identified as themes in our thematic analysis; searching the literature for the identified themes may have produced more articles relevant to PDT. Another limitation is that the multiple-word terms used to identify GHEs (e.g., *international clinical internship* and *international service learning*) may have limited our ability to find all relevant articles. Finally, certain articles we identified were not available to us. Nonetheless, we are confident that the

combination of the literature search and the snowball method allowed us to scope much of the relevant literature related to PDT.

CONCLUSION

The growing participation of Canadian PT students in GHEs requires universities to offer PDT to their students and to make sure that both students and host institutions benefit from the GHE. Our study identified recommendations for PDT content and learning methods. However, few articles evaluated the actual effectiveness of PDT, which means that the recommendations found in the scoping review are mostly based on expert opinion or on feedback given by students after their PDT. We would therefore encourage future research to evaluate the effectiveness of PDT in the development of students' GH competencies and in host communities.

Furthermore, it would be interesting to compare different training programmes, using varying themes and learning methods, to identify the most (cost-)effective way of delivering PDT and to formulate clear recommendations that could lead to standardizing PDT and GH content in Canadian PT programmes. Finally, because many Canadian universities are currently developing and improving their GHEs, it would be advantageous to connect programmes, GH leaders, and professional associations to share knowledge and resources. We invite all interested individuals and groups to contact us to work together to optimize GHEs and collectively aim to integrate more GH and cultural competency training into core curricula. Students and future professionals will be faced with challenging GH situations throughout their entire careers, whether here in Canada or abroad.

KEY MESSAGES

What is already known on this topic

Global health experiences (GHEs) can contribute positively to students' knowledge and skills, yet they present inherent risks, both for the students and for their host institutions. There is a growing recognition that universities have a responsibility to prepare their students for GHEs, and a wealth of literature exists that discusses predeparture training (PDT) content and learning methods.

What this study adds

The major contributions of this scoping review are to highlight recommendations from the peer-reviewed and grey literature regarding (1) the content needed to be covered in PDT for physiotherapy students participating in GHEs; (2) the need to use learning methods that enhance knowledge, develop cross-cultural skills, and address attitudinal changes; (3) the need for universities to evaluate the effectiveness of PDT; and (4) the need for more research to establish evidence-based guidelines for PDT.

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APPENDIX

Key Words Used for Database Search on Cinahl, Medline, ERIC, Education Source, Mantis, and AMED

"global health" OR "international health" OR "develop* countries" OR "develop* nation*" OR "poor countries*" OR "low income countries*" OR "low-resource setting" OR "middle income countries" OR "third world" OR "international cooperation" OR "humanitarian aid" OR "refugee" OR "crisis intervention" OR "reconstruction" OR "community-based rehab*" OR "CBR" OR "global health initiative"

AND

"rehabilitation" OR "health" OR "medic*" OR "physiotherapy" OR "physical therapy" OR "occupational therapy" OR "health sciences" OR "PT" OR "OT" OR "MD"

AND

"best practices" OR "curricul*" OR "training" OR "education" OR "concentration" OR "electives" OR "extracurricular" OR "course" OR "course work" OR "preparation" OR "pre-departure training" OR "pre departure training"

AND

"placement" OR "fieldwork" OR "international clinical internship" OR "international clinical experience" OR "ICI" OR "ICE" OR "stage"